

**Amendments to the Specification:**

Please replace the third paragraph on page 13, lines 16-27 of the specification with the following paragraph:

The table lookup engine 200, as shown in figure 2, comprises an input FIFO buffer 202 connected to the input of a distributor 204. ~~the~~ The output of the distributor is connected in parallel to a plurality of lookup state machines 206a, 206b, 206c, 206d. Each lookup state machine 206a, 206b, 206c, 206d has access to a storage means. The storage means comprises a memory arbiter 208 and a plurality of parallel independent memory banks 212a, 212b. The memory banks 212a, 212b respectively contain look up table 213a, 213b. Each lookup state machine 206a, 206b, 206c, 206d is connected to the input of a collector 210. The output of the collector 210 is connected to an output FIFO buffer 214.